

Australian/New Zealand Standard™

**High pressure water (hydro)
jetting systems**

**Part 1: Guidelines for safe
operation and maintenance**

AS/NZS 4233.1:1999

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Australian Chamber of Commerce and Industry
Australian High Pressure Water Jetting Association
Australian Workers Union
Department of Minerals and Energy, W.A.
National Cleaning Suppliers Association of Australia
New Zealand Metal Casts Industry Association
New Zealand Contractors Federation
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PREFACE

This Standard was prepared by the Joint Australia/New Zealand Standards Committee SF/43, High Pressure Water Safety, to supersede AS/NZS 4733(Int):1994, *High pressure water jetting systems—Safe operation and maintenance*.

This Standard was revised to take account of developments that have occurred and comments received since the Standard was first published as an Interim Standard in 1994.

This Standard provides guidance on the various issues which need to be addressed when pressurized water jetting operations are performed. It also provides recommendations for the elimination or reduction of hazards and risks associated with high pressure water jetting operations.

This Standard is the first of a series of Standards applicable to high pressure water (hydro) jetting.

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Part 1: Guidelines for safe operation and maintenance

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard provides guidance for the operation and maintenance of water jetting equipment. It describes methods for eliminating or reducing hazards and risks associated with water jetting.

1.2 OBJECTIVE The objective of this Standard is to provide users of water jetting systems with guidance concerning safe operating practices to protect and safeguard equipment users and other persons who may be in the vicinity of water jetting operations.

1.3 APPLICATION This Standard only provides guidance for:

- (a) High pressure water jetting systems pressurized by positive displacement pumps with an output capability greater than 400 bar litres/min.
- (b) High pressure water jetting operations carried out at pressures above 200 bar and includes jetting operations involving the use of additives and abrasives.
- (c) Water jetting operations below 200 bar where there is a foreseeable risk of injury to operators or other persons.

NOTE: High pressure water jetting systems with an output capability greater than 800 bar litres per minute and less than 5600 bar litres per minute are identified as Class A and systems with an output capability in excess of 5600 bar litres per minute are identified as Class B.

1.4 GENERAL PRINCIPLES The following principles should be observed in the protection of persons against the harmful effects of hazards associated with water jetting:

- (a) Before commencing any water jetting operations steps should be taken to ensure that all hazards likely to affect the safety of persons operating equipment or working in the vicinity of water jetting operations are minimized. These steps should include—
 - (i) hazard identification;
 - (ii) risk assessment; and
 - (iii) risk control.
- (b) Every effort should be made to prevent or control the release of injurious or harmful substances or material into the working environment. This may be achieved through the improved design of plant and equipment, buildings and work areas or by work procedures and controls which eliminate the need for persons to enter or remain within barricaded work areas when equipment is operating.
- (c) If efforts to prevent or control hazards at the source are unsuccessful, appropriate personal protective equipment should be provided and worn by equipment operators and any other persons who may be in the vicinity of the work areas.



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